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65/W/WAS/C/15 One Year Leys for Wheat - Winter Wheat

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65/c/15.1

ONE YEAR LEYS FOR WHEAT

(WAS)

A comparison of different one year leys as a preparation for wheat - Woburn Warren Field North - winter wheat 1965 the second year.

Design: A single replicate of 6 x 3 x 3 x 3 in 3 randomised blocks of 18 plots, whole plots split for N.

Area of each sub plot: 0.0071. Area harvested: 0.0060.

Treatments: All combinations of:-

Whole plots:

1. Leys undersown in barley 1963 and cut for hay 1964, with nitrogen as follows:
Clover: None (C0).
Ryegrass: None (R0), 1 (R2), 2 (R4) cwt N.
Clover-ryegrass: None (M0), 1 (M2) cwt N.
2. Potash (1964): None (K0), 1.2 (K1), 2.4 (K2) cwt K₂O as muriate of potash.
3. Potash to wheat 1965: None (K0), 1.2 (K1), 2.4 (K2) cwt K₂O half applied to ley stubble as muriate of potash, half combine drilled with 0.6 cwt P₂O₅ as granular super-phosphate (K0), as (0:20:20) (K1), as (0:14:28) (K2).

Sub plots:

4. Nitrogen to wheat 1965: None (N0), 0.5 (N1), 1.0 (N2) cwt N as 'Nitro-Chalk'.

Basal applications:

Leys 1964: 1.25 cwt superphosphate combine drilled 1963.

Wheat 1965: Manures: None. Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 6 pints in 40 gals).

Cultivations, etc.: 1st dressing of K applied: Aug 6, 1964.

Ploughed: Oct 9 - 26. Rotary cultivated, seed drilled at

206 lb: Nov 24. N applied - 1st half dressing: Apr 6, 1965,

2nd half dressing: May 13. Sprayed: May 10. Combine

harvested: Sept 12. Variety: Cappelle. Previous crops:

Barley 1962 and 1963.

- NOTES: (1) Plots were sampled at ear emergence for yield and N and K percentage, and at harvest for N and K percentage of grain and straw.
- (2) For the previous year's results see 'Results' 64/c/16.

Standard errors per plot. Grain:

Whole plot: 2.10 or 6.7% (18 d.f.)

Sub plot: 3.02 or 9.6% (40 d.f.)

65/C/15.2

SUMMARY OF RESULTS

GRAIN

	CO	RO	R2	R4	MO	M2	Mean
			(±1.21)				(±0.50)
K0	33.4	28.9	27.3	30.6	33.0	28.9	30.4
K1	36.9	30.5	28.0	31.8	33.9	31.3	32.1
K2	37.7	30.6	28.8	33.2	32.1	29.2	31.9
			(±1.21)				
KR0	36.4	29.7	27.5	32.3	31.7	30.5	31.3
KR1	36.5	29.6	28.4	30.9	34.4	30.0	31.6
KR2	35.1	30.8	28.3	32.4	33.0	28.9	31.4
			(1) and (2)				(±0.41)
N0	31.6	21.5	20.1	28.2	27.2	21.8	25.1
N1	38.2	32.1	29.2	32.7	34.5	31.5	33.0
N2	38.3	36.4	34.9	34.6	37.3	36.2	36.3
Mean (±0.70)	36.0	30.0	28.1	31.9	33.0	29.8	31.5

Mean D.M. %: 75.1

- (1) (±1.08) For use in horizontal and diagonal comparison
 (2) (±1.01) For use in vertical and interaction comparison

65/C/15.3

STRAW							
	CO	RO	R2	R4	MO	M2	Mean
K0	32.7	23.2	19.6	21.4	26.2	24.7	24.6
K1	33.6	22.5	21.9	24.0	29.0	22.5	25.6
K2	33.1	23.9	21.8	25.1	28.2	23.7	26.0
KR0	32.2	24.2	19.9	22.3	25.6	23.5	24.6
KR1	32.9	22.6	21.2	23.0	28.7	23.7	25.3
KR2	34.3	22.7	22.2	25.3	29.2	23.6	26.2
NO	27.8	16.3	14.5	19.0	22.4	15.5	19.2
N1	35.0	25.1	21.8	23.4	28.9	26.3	26.7
N2	36.7	28.1	27.0	28.1	32.2	29.1	30.2
Mean	33.1	23.2	21.1	23.5	27.8	23.6	25.4

Mean D.M.%: 74.5